

# REPORT ON MACHINERY

No. 20 JUN 20 1920

Received at London Office

Writing Report 11<sup>th</sup> May 1920 When handed in at Local Office

Port of Kobe

Survey held at Kobe

Date, First Survey 3<sup>rd</sup> Sept 1919 Last Survey 20<sup>th</sup> Apr. 1920

on the Steel Single Screw Steamer "NORWAY MARU"

(Number of Visits 68) Gross 5869.86 Tons Net 4266.26

R. YOSHIMORI Built at Kobe

By whom built Kawasaki Dockyard Co. Ltd. When built 1920

made at Kobe

By whom made Kawasaki Dockyard Co. Ltd. when made 1920

made at do

By whom made do when made 1920

Indicated Horse Power

Owners The Kawasaki Kisen Kaisha Ltd. Port belonging to Kobe

Horse Power as per Section 28 440

Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes

Engines, &c.—Description of Engines

Triple Expansion No. of Cylinders Three No. of Cranks 3

Cylinders 26:43½:72 Length of Stroke 48" Revs. per minute 70 Dia. of Screw shaft as per rule 15.41 as fitted 16" Material of screw shaft Steel

screw shaft fitted with a continuous liner the whole length of the stern tube No liner Is the after end of the liner made water tight

propeller boss If the liner is in more than one length are the joints burned If the liner does not fit tightly at the part

the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive If two

are fitted, is the shaft tapered or protected between the liners Length of stern bush 5'-5¼"

Tunnel shaft as per rule 13.48 Dia. of Crank shaft journals as per rule 14.15 as fitted 14¾" Dia. of Crank pin 14¾" Size of Crank webs 9½"x20"x8" Dia. of thrust shaft under +26½" at pin + journal

14¾" Dia. of screw 17'-6" Pitch of Screw 19'-0" mean No. of Blades 4 State whether moveable yes Total surface 100 sq. ft.

Feed pumps One Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work yes (with Weir's Feed)

Bilge pumps Two Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work yes

Donkey Engines Three Sizes of Pumps Weir's Feed 9½"x7"x24" two Ballast 10"x11"x12" dupl. No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room Three 3½ Gen. Sew. 7½"x5"x6" dupl. Donkey 5½"x3½"x9" dupl. No. 1, 3 + 4 Hold each two 3½" No. 2 Hold two 4"

Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump Cir. p. Is a separate Donkey Suction fitted in Engine room & size yes 3½"

all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible None

all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Larger Valves Smaller Cocks.

they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the Discharge Pipes above or below the deep water line above

they each fitted with a Discharge Valve always accessible on the plating of the vessel yes Are the Blow Off Cocks fitted with a spigot and brass covering plate yes

pipes are carried through the bunkers None How are they protected

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes

the Stern Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Up. platform of Eng. Rm.

Boilers, &c.—(Letter for record 5) Manufacturers of Steel Illinois Stl. Co. Carnegie Stl. Co. Am. Spiral Co.

2305 2252x2+1132 (Aux. Blk.) 255 255x2+1132 (Furnaces).

al Heating Surface of Boilers 56360 Is Forced Draft fitted yes No. and Description of Boilers Two 5. 6 + Aux. 5. 6.

Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 20-2-20 25-2-20 No. of Certificate 20-2-20 25-2-20

each boiler be worked separately yes Area of fire grate in each boiler 60½ sq. ft. No. and Description of Safety Valves 2

boiler Two Spring loaded Area of each valve 3¾" dia. Pressure to which they are adjusted 205 lbs. Are they fitted with easing gear yes

all distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 14'-6" Length 12'-0" Material of shell plates Steel

thickness 1½" Range of tensile strength 2678 to 3265 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Ends Doub.

g. seams Doub. shapes Diameter of rivet holes in long. seams 1⅜" Pitch of rivets 8¾" 1⅜" Lap of plates or width of butt straps 19½"x1¼"

be given percentages of strength of longitudinal joint rivets 95.84 plate 84.28 Working pressure of shell by rules 201 lbs. Size of manhole in shell 16"x12"

se of compensating ring (7½"+flange) 1⅜" No. and Description of Furnaces in each boiler 3 Morrison's Material Steel Outside diameter 48¼"

length of plain part top bottom Thickness of plates crown 2⅓ Description of longitudinal joint Weld No. of strengthening rings 7

working pressure of furnace by the rules 221 lbs. Combustion chamber plates: Material Steel Thickness: Sides 1⅛" Back 1⅛" Top 1⅛" Bottom 7⁄8"

pitch of stays to ditto: Sides 8½"x8½" Back 8½"x9" Top 8½"x9½" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 203 lbs.

Material of stays Steel Area at smallest part 2.10" Area supported by each stay 8½"x9½" Working pressure by rules 230 lbs. End plates in steam space:

126 Material Steel Thickness 1⅝" Pitch of stays 19¾"x20½" How are stays secured Doub. nuts Working pressure by rules 202 lbs. Material of stays Steel

93 Area at smallest part 10" Area supported by each stay 19¾"x20½" Working pressure by rules 260 lbs. Material of Front plates at bottom Steel

thickness 1⅝" Material of Lower back plate Steel Thickness ¾" Greatest pitch of stays 13½" at wide water space Working pressure of plate by rules 232 lbs.

diameter of tubes 3¼" Pitch of tubes 4⅞"x4⅞" Material of tube plates Steel Thickness: Front 1" Back 1⅝" Mean pitch of stays 8¾"

pitch across wide water spaces 13¼"x5" Working pressures by rules 240 lbs. Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 10¼"+13" (2) Length as per rule 34½ Distance apart 9¾" Number and pitch of stays in each 3 @ 8½"

Working pressure by rules 220 lbs. Steam dome: description of joint to shell None % of strength of joint

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

54 SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to

Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

009256 - 009266 - 0031



EB FRAMES.

S, In Fore Body, No. and spe

brdth. & thic

f Side Stringers

S, In E. & B. Space, No. & sp

brdth. & thi

S, In After Body, No. and s

brdth. & thi

f Side Stringers

Face Angles to Web-Fram

LATES to Stringers bet

s, depth and thickness.....

DS. 6 Number. 6 Thickness.

Vessel. Per Rule.

ADS Fr. 14 36-2

42 34-2

69 34-2

93 36-2

143 36-2

172 40

AL.

Plates doubled two sp

ne Watertight

F

ES.

AMID:

Breadth.

Inches.

KEEL.....

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Material and Size, Shrouds

Suit of

# AUXILIARY IS A ~~DOCK~~ BOILER FITTED?

SPARE GEAR. State the articles supplied:—

yes

If so, is a report now forwarded?

yes

- Four main bearing bolts + nuts.
- Two Crank pin bolts + nuts.
- Two Crosshead bolts + nuts.
- Set coupling bolts + nuts.
- Set Feed + Bidge pump valves.
- Assorted bolts nuts + iron.

- Set packing rings + springs each piston.
- Set junk ring bolts + nuts.
- 1 set of packing for each piston rods + Valve rods.
- Propeller shaft with nut.
- Feed check valve + seat.
- Slide valve spindle each size.

- Centrifugal pump.
- shaft + whine.
- A.P. Rod +
- 3 Safety valve.
- Cond. + Blr. to
- 1 set A.P. Head

The foregoing is a correct description,

Kawasaki Dockyard Co., Ltd.

Per. Ala Kane

Secretary

Manufacturer.

Dates of Survey while building

During progress of work in shops -- Sept 3, 15, Oct 9, 11, 14, 15, 16, 21, 23, Nov 5, 7, 19, 29, Dec 4, 10, 13, 17, 18, 22, 25, 1920  
During erection on board vessel -- Jan. 23, 26, 27, 28, 30, Feb. 3, 4, 9, 10, 12, 14, 16, 19, 20, 23, 24, 25, 26, 27, 28, Mar. 1, 2, 3, 4, 5, 6, 8, 10, 12, 1920  
Total No. of visits 68.

Dates of Examination of principal parts—Cylinders 26-2-20 Slides 2-4-20 Covers 22-3-20 Pistons 17-3-20  
Connecting rods 23-2-20 Crank shaft 8-3-20 Thrust shaft 23-2-20 Tunnel shafts 28-2-20 Screw shaft 3-3-20 Propeller 0 lbs. Size  
Stern tube 2-3-20 Steam pipes tested 5-3-20 Engine and boiler seatings 10-3-20 Engines holding down bolts 6-4-20  
Completion of pumping arrangements 14-4-20 Boilers fixed 6-4-20 Engines tried under steam 16-4-20  
Completion of fitting sea connections 27-2-20 Stern tube 4-3-20 Screw shaft and propeller 6-3-20  
Main boiler safety valves adjusted 13-4-20 Thickness of adjusting washers Locknuts (Sealed by Govt.)  
Material of Crank shaft 7 Steel Identification Mark on Do. 8-3-20 Material of Thrust shaft 7 Steel Identification Mark on Do. 1-79  
Material of Tunnel shafts 7 Steel Identification Marks on Do. 28-2-20 Material of Screw shafts 7 Steel Identification Marks on Do. 15 1/4 x 14 1/2  
Material of Steam Pipes Solid drawn Steel 28-2-20 Test pressure 600 lbs.  
Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150° F. 154 x 14 1/2

Have the requirements of Section 49 of the Rules been complied with

Is the flash point of the oil to be used over 150° F.

Is this machinery duplicate of a previous case

If so, state name of vessel

- General Remarks (State quality of workmanship, opinions as to class, &c.)
- 5/5. "WAR QUEEN" (Kobe Reg.)
- 5/5. "WAR PRINCE" (" "
- 5/5. "SINGAPORE MARU" (" "
- 5/5. "SWEDEN MARU" (" "
- 5/5. "CHINA MARU" (" "

The Machinery has been made + fitted under Special Survey in accordance with the requirements of the Rules, and the materials and workmanship are good. The Machinery is eligible in opinion for the notation L.M.C. 4-20 in the Register Book.

L.M.C. 4-20 F.D.

30/6/20

Ala Kane

The amount of Entry Fee ... Yen 30.-

Special Boiler Fee ... 735.-

Travelling Expenses (if any) ... 20.-

Committee's Minute FRI. JUL. 2 1920

Assigned + L.M.C. 4-20

MACHINERY DEPT. WRITTEN

Engineer Surveyor to Lloyd's Register of Shipping

Survey Fee ... Travelling Expenses (



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